

OIB - C-130H Hercules #439 05/12/15 Science Report

Aircraft:

[C-130H Hercules #439](#) ([See full schedule](#))

Date:

Tuesday, May 12, 2015

Mission:

OIB

Mission Location:

Thule, Greenland

Mission Summary:

Mission: North Central Gap 02 (priority: high)

This mission, along with the North Central Gap 01 and 03 missions, is primarily designed to fill a gap in altimetry and radar coverage of the north-central portion of the ice sheet. We also reoccupy the centerline of the Rink Glacier, we establish new centerlines of the Mikkelsen and Waltershausen glaciers, and we re-fly portions of the northwest coast-parallel grid flown from 2010-2012.

Weather across northern Greenland this morning was disorganized and "messy" with no strong high or low pressure systems influencing the region, but with several weak lows around the perimeter of the island and coastal fog almost everywhere around the edge. The Arctic Basin was also largely covered in fog. The North-Central Gap 02 flight nicely threaded between today's various fog banks and weak weather systems. We encountered small areas of ground fog in the southwestern portion of the mission and had to abandon the planned centerline run of Rink Glacier due to poor visibility and high terrain there, but this presented no problem since we had already flown this centerline in a previous flight from Kangerlussuaq.

All instruments performed normally today, with the exception of the ATM T5 (narrow scan) laser controller, which occasionally powered itself off for unknown reasons. The problem appears to be related to temperature. The ATM team continues to investigate. Also, MCoRDS suffered a problem at the beginning of the flight line which resulted in the loss of one hour of data at the beginning of the flightline.

We conducted an instrument landing due to poor visibility at Thule. No ramp pass was possible.

Data volumes:

ATM: 25 Gb

CAMBOT: 84 Gb

DMS: 96 Gb

Ku-Band Radar: 193 Gb

MCoRDS: 1.6 Tb

Narrow Swath ATM: 32 Gb

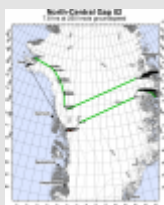
NSERC Onboard Data: TBD

Snow Radar: 193 Gb

total data collection time: 6.3 hrs

Images:

Map of North-Central Gap 02



[Read more](#)

Leidy Glacier



[Read more](#)

Bedrock at Waltershausen Glacier



[Read more](#)

Submitted by:

John Sonntag on 05/12/15

Related Flight Report:

C-130H Hercules #439 05/12/15

Flight Number:

North-Central Gap 02

Payload Configuration:

OIB

Nav Data Collected:

No

Total Flight Time:

8.1 hours

Submitted by:

Luci Crittenden on 05/12/15

Flight Segments:

From:	BGTL	To:	BGTL
Start:	05/12/15 10:50 Z	Finish:	05/12/15 18:55 Z
Flight Time:	8.1 hours		
Log Number:	151002	PI:	Michael Studinger
Funding Source:	Bruce Tagg - NASA - SMD - ESD Airborne Science Program		
Purpose of Flight:	Science		
Comments:	North-Central Gap 02 mission completed today. No ramp pass on return due to IFR conditions.		

Flight Hour Summary:

	151002
Flight Hours Approved in SOFRS	334.4
Total Used	297.6
Total Remaining	36.8

151002 Flight Reports

Date	Flt #	Purpose of Flight	Duration	Running Total	Hours Remaining
03/12/15	ATF	Check	1.5	1.5	332.9
03/13/15	PTF - GPS	Check	2	3.5	330.9
03/13/15	PTF - Radar #1	Check	0.8	4.3	330.1
03/13/15 - 03/14/15	PTF - Radar #2	Check	4.5	8.8	325.6
03/16/15	PTF - Radar #3	Check	2.4	11.2	323.2

03/17/15	Transit	Transit	7.8	19	315.4
03/19/15	Nansen Gap	Science	7.4	26.4	308
03/24/15	Sea Ice - Zigzag East	Science	8.2	34.6	299.8
03/25/15	Sea Ice North Pole Transect ? Thule	Science	8.2	42.8	291.6
03/26/15	Sea Ice - Laxon Line	Science	9.2	52	282.4
03/27/15 - 03/28/15	Sea Ice - East Beaufort Sea	Science	8.2	60.2	274.2
03/29/15 - 03/30/15	Sea Ice - North Beaufort Loop	Science	8.9	69.1	265.3
03/30/15 - 03/31/15	Sea Ice - SIZRS Zigzag	Science	8.1	77.2	257.2
04/01/15	Sea Ice - South Basin Transect	Science	8.8	86	248.4
04/03/15	Sea Ice - South Canada Basin	Science	7.4	93.4	241
04/06/15	OIB Transit from BGTL- BGSF	Transit	3.3	96.7	237.7
04/08/15	Helheim-Kangerdlussuag	Science	8	104.7	229.7
04/09/15	K-EGIG Summit	Science	8.3	113	221.4
04/10/15	Southeast Glaciers 01	Science	8	121	213.4
04/11/15	East Glaciers 01	Science	8	129	205.4
04/13/15	Southeast Coastal	Science	7.7	136.7	197.7
04/14/15	Helheim-Kangerdlussuag Gap B	Science	7.9	144.6	189.8
04/17/15	Umanaq B	Science	7.5	152.1	182.3
04/18/15	Southwest Coast A	Science	8.1	160.2	174.2
04/20/15	Penny 01	Science	6.3	166.5	167.9
04/21/15	Thomas-Jakobshaven 01	Science	8.7	175.2	159.2
04/22/15	Southeast Flank 01	Science	7.6	182.8	151.6
04/23/15	Jakobshavn-Eqip-Store	Science	9.2	192	142.4
04/24/15	Geikie 02	Science	8.3	200.3	134.1
04/25/15	Jakobshaven 02/ Mop Up	Science	6.9	207.2	127.2
04/27/15	Southwest Coastal B	Science	8	215.2	119.2
04/28/15	Southeast Glaciers 02	Science	7	222.2	112.2
04/29/15	TRANSIT BGSF-BGTL	Transit	2.5	224.7	109.7
04/30/15	ATM Laser Repair Checkout	Science	2.3	227	107.4
05/01/15	NW Coastal A	Science	7.2	234.2	100.2
05/05/15	IceSat-2 North / CryoSat- 2 SARIn	Science	8.2	242.4	92
05/06/15	North Glaciers 01	Science	8.2	250.6	83.8
05/07/15	Devon-Barnes 01	Science	7.8	258.4	76
05/08/15	Zigzag West	Science	7.2	265.6	68.8
05/11/15	Northwest Glaciers 01	Science	7.8	273.4	61
05/12/15	North-Central Gap 02	Science	8.1	281.5	52.9
05/15/15	North-Central Gap 01	Science	7.3	288.8	45.6
05/21/15	Transit - Thule to Bangor, ME	Transit	6.5	295.3	39.1
05/22/15	Transit - Bangor, ME to WFF	Transit	2.3	297.6	36.8

Flight Reports began being entered into this system as of 2012 flights. If there were flights flown under an earlier log number the flight reports are not available online.

Page Last Updated: April 22,
2017

Page Editor: Erin Justice

NASA Official: Bruce A.

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